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1653  
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PATENT

Attorney Docket No. 209897

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

LAZARUS et al.

Application No. 09/814,558

Filing Date: March 22, 2001

For: DMT-TIC DI- AND TRI-PEPTIDE  
DERIVATIVES AND RELATED  
COMPOSITIONS AND METHODS OF USE

Group Art Unit: 1653

Examiner: LUKTON, David

11/c  
A.G.J  
5/2/02

**RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS FOR SEQUENCE  
DISCLOSURES (37 C.F.R. §§ 1.821-1.825)**

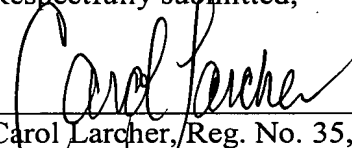
U.S. Patent and Trademark Office  
Box SEQUENCE  
P.O. Box 2327  
Arlington, VA 22202

Dear Sir:

In response to the "Notice to Comply with Requirements for Sequence Disclosures" (copy enclosed) mailed on April 8, 2002, Applicants hereby submit a substitute nucleotide/amino acid sequence listing in written form (paper copy) and in computer-readable form (diskette) in the above-identified patent application.

The undersigned hereby verifies that the contents of the written form and computer-readable form are identical, and that they do not disclose new matter in the patent application.

Respectfully submitted,

  
\_\_\_\_\_  
Carol Larcher, Reg. No. 35,243  
One of the Attorneys for Applicants  
**LEYDIG, VOIT & MAYER, LTD.**  
Two Prudential Plaza, Suite 4900  
180 North Stetson  
Chicago, Illinois 60601-6780  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

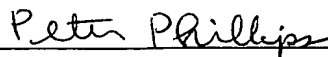
Date: April 16, 2002

**CERTIFICATE OF MAILING**

I hereby certify that this Response to Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (along with any documents or materials referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202.

April 16, 2002

Date



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09/814 558

Application No.:

APR 19 2002

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☒ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other:

**Applicant Must Provide:**

- ☐ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☐ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☐ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216 or (703) 308-2923
- For CRF Submission Help, call (703) 308-4212
- For PatentIn software Program Support:
  - HELP DESK: (703) 739-8559, ext 508, M-F, 8 AM to 5 PM EST except holidays
  - Email: [PATIN21HELP@uspto.gov](mailto:PATIN21HELP@uspto.gov)
  - To purchase PatentIn software: (703) 306-2600

**PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE**



Raw Sequence Listing Error Summary

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MAR 25 2002

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APR 24 2002

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**ERROR DETECTED**

**SUGGESTED CORRECTION**

SERIAL NUMBER: 09/814,558

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos  
The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2      Invalid Line Length  
The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3      Misaligned Amino  
    Numbering  
The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4      Non-ASCII  
The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5      Variable Length  
Sequence(s)      contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6      PatentIn 2.0  
    "bug"  
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7      Skipped Sequences  
    (OLD RULES)  
Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
This sequence is intentionally skipped  
  
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8      Skipped Sequences  
    (NEW RULES)  
Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence.  
<210> sequence id number  
<400> sequence id number  
000
- 9      Use of n's or Xaa's  
    (NEW RULES)  
Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10      Invalid <213>  
    Response  
Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 ✓ Use of <220>  
Sequence(s) Alt missing the <220> "Feature" and associated numeric identifiers and responses.  
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12      PatentIn 2.0  
    "bug"  
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13      Misuse of n  
n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



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Does Not Comply 1653  
Corrected Diskette Needed

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/814,558

DATE: 03/14/2002  
TIME: 14:12:03

Input Set : A:\PTO.VSK.txt  
Output Set: N:\CRF3\03142002\I814558.raw

3 <110> APPLICANT: Lazarus, Lawrence H  
4 Salvadori, Severo  
6 <120> TITLE OF INVENTION: DMT-TIC DI- AND TRI-PEPTIDIC DERIVATIVES AND RELATED  
COMPOSITIONS AND

7 METHODS OF USE

9 <130> FILE REFERENCE: 209897  
11 <140> CURRENT APPLICATION NUMBER: 09/814,558  
12 <141> CURRENT FILING DATE: 2001-03-22  
14 <160> NUMBER OF SEQ ID NOS: 9  
16 <170> SOFTWARE: PatentIn version 3.1  
18 <210> SEQ ID NO: 1  
19 <211> LENGTH: 5  
20 <212> TYPE: PRT  
21 <213> ORGANISM: Artificial Sequence  
23 <220> FEATURE:  
24 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
26 <220> FEATURE:  
27 <221> NAME/KEY: misc\_feature  
28 <222> LOCATION: (2)..(2)  
29 <223> OTHER INFORMATION: "Ala" = D-isomer  
32 <220> FEATURE:  
33 <221> NAME/KEY: misc\_feature  
34 <222> LOCATION: (4)..(4)  
35 <223> OTHER INFORMATION: "Phe" = N-methylphenylalanine  
38 <400> SEQUENCE: 1  
40 Tyr Ala Gly Phe Gly  
41 1 5  
44 <210> SEQ ID NO: 2  
45 <211> LENGTH: 5  
46 <212> TYPE: PRT  
47 <213> ORGANISM: Artificial Sequence  
49 <220> FEATURE:  
50 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
52 <220> FEATURE:  
53 <221> NAME/KEY: misc\_feature  
54 <222> LOCATION: (2)..(2)  
55 <223> OTHER INFORMATION: "Ala" - D-isomer  
58 <220> FEATURE:  
59 <221> NAME/KEY: misc\_feature  
60 <222> LOCATION: (4)..(4)  
61 <223> OTHER INFORMATION: "Phe" - D-isomer  
64 <400> SEQUENCE: 2  
66 Tyr Ala Gly Phe Met  
67 1 5

unacceptable  
- must explain genetic source  
see error summary sheet, item 11

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/814,558

DATE: 03/14/2002  
TIME: 14:12:03

Input Set : A:\PTO.VSK.txt  
Output Set: N:\CRF3\03142002\I814558.raw

70 <210> SEQ ID NO: 3  
71 <211> LENGTH: 7  
72 <212> TYPE: PRT  
73 <213> ORGANISM: Artificial Sequence  
75 <220> FEATURE:  
76 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
78 <220> FEATURE:  
79 <221> NAME/KEY: misc\_feature  
80 <222> LOCATION: (2)..(2)  
81 <223> OTHER INFORMATION: "Ala" = D-isomer  
84 <400> SEQUENCE: 3  
86 Tyr Ala Phe Glu Val Val Gly  
87 1 5  
90 <210> SEQ ID NO: 4  
91 <211> LENGTH: 7  
92 <212> TYPE: PRT  
93 <213> ORGANISM: Artificial Sequence  
95 <220> FEATURE:  
96 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
98 <220> FEATURE:  
99 <221> NAME/KEY: misc\_feature  
100 <222> LOCATION: (2)..(2)  
101 <223> OTHER INFORMATION: "Ala" = D-isomer  
104 <400> SEQUENCE: 4  
106 Tyr Ala Phe Gly Tyr Pro Ser  
107 1 5  
110 <210> SEQ ID NO: 5  
111 <211> LENGTH: 5  
112 <212> TYPE: PRT  
113 <213> ORGANISM: Artificial Sequence  
115 <220> FEATURE:  
116 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
118 <220> FEATURE:  
119 <221> NAME/KEY: misc\_feature  
120 <222> LOCATION: (1)..(1)  
121 <223> OTHER INFORMATION: "Tyr" = 2',6'-dimethyltyrosine  
124 <400> SEQUENCE: 5  
126 Tyr Phe Gly Val Val  
127 1 5  
130 <210> SEQ ID NO: 6  
131 <211> LENGTH: 5  
132 <212> TYPE: PRT  
133 <213> ORGANISM: Artificial Sequence  
135 <220> FEATURE:  
136 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
138 <220> FEATURE:  
139 <221> NAME/KEY: misc\_feature  
140 <222> LOCATION: (2)..(2)  
141 <223> OTHER INFORMATION: "Ala" = D-isomer

## RAW SEQUENCE LISTING

DATE: 03/14/2002

PATENT APPLICATION: US/09/814,558

TIME: 14:12:03

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03142002\I814558.raw

144 <400> SEQUENCE: 6  
146 Tyr Ala Phe Trp Tyr  
147 1 5  
150 <210> SEQ ID NO: 7  
151 <211> LENGTH: 7  
152 <212> TYPE: PRT  
153 <213> ORGANISM: Artificial Sequence  
155 <220> FEATURE:  
156 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
158 <220> FEATURE:  
159 <221> NAME/KEY: misc\_feature  
160 <222> LOCATION: (2)..(2)  
161 <223> OTHER INFORMATION: "Ala" = D-isomer  
164 <400> SEQUENCE: 7  
166 Tyr Ala Phe Trp Tyr Pro Lys  
167 1 5  
170 <210> SEQ ID NO: 8  
171 <211> LENGTH: 5  
172 <212> TYPE: PRT  
173 <213> ORGANISM: Artificial Sequence  
175 <220> FEATURE:  
176 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
178 <220> FEATURE:  
179 <221> NAME/KEY: misc\_feature  
180 <222> LOCATION: (2)..(2)  
181 <223> OTHER INFORMATION: "Cys" = 3,3-dimethyl-o-(-)-cysteine  
184 <220> FEATURE:  
185 <221> NAME/KEY: misc\_feature  
186 <222> LOCATION: (5)..(5)  
187 <223> OTHER INFORMATION: "Cys" = 3,3-dimethyl-o-(-)-cysteine  
190 <400> SEQUENCE: 8  
192 Tyr Cys Gly Phe Cys  
193 1 5  
196 <210> SEQ ID NO: 9  
197 <211> LENGTH: 6  
198 <212> TYPE: PRT  
199 <213> ORGANISM: Artificial Sequence  
201 <220> FEATURE:  
202 <223> OTHER INFORMATION: Artificial Sequence/Unknown  
204 <220> FEATURE:  
205 <221> NAME/KEY: misc\_feature  
206 <222> LOCATION: (2)..(2)  
207 <223> OTHER INFORMATION: The Firt "Met" = D isomer  
210 <400> SEQUENCE: 9  
212 Tyr Met Phe His Leu Met  
213 1 5

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/814,558

DATE: 03/14/2002

TIME: 14:12:04

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF3\03142002\I814558.raw